

QUADZERO™

foil faced flexible noise barrier

Quadzero™ is a high-performance, foil faced mass-loaded vinyl noise barrier, offering superior acoustic transmission loss and low spread of flame surface covering.

Quadzero™ was developed to meet market noise reduction requirements in the domestic, commercial, industrial and OEM sectors.

To achieve this high-performance, the Pyrotek® engineering team developed Quadzero™ to be dense, thin, strong, tear-resistant and highly flexible. These properties give the product high transmission loss throughout the various weight ranges. It complies with British and international fire and building codes for low spread of flame.

Stiff, lightweight panel constructions, such as plasterboard, drywall, plywood and hollow core walls, typically have coincidence dip resonance which allows noise to transmit through a construction. The coincidence dip is dependent on the material's stiffness and thickness and occurs at the point where the sound transmitted through the structure matches the natural frequency of the panel.

Quadzero™ shifts the coincidence dip to frequencies limiting its impact, thereby maintaining the performance of the product. The thin, dense mass Quadzero™ barrier reflects and absorbs the transmission of sound through walls, ceilings and floors, reducing the critical frequencies generated from mechanical equipment, engine noise and electronic audio devices.

VOC STATEMENT

No Ozone depleting substances are used during the manufacture of Quadzero™. No Volatile Organic Compounds (VOC) are intentionally added to Quadzero™ during its manufacture. Quadzero™ is not considered to sustain vermin or have susceptibility to damage from vermin.

SPECIFICATIONS

Colour	Silver (Aluminium face)
Available	Standard roll size: 4.4 x 15 to 30 ft Barrier weight: 0.5 lb/ft², 1 lb/ft², 1.5 lb/ft², 2 lb/ft² Custom sizes available depending on MOQ



applications

- Inside cavities or over lightweight wall, ceiling and floor constructions. Ideal for home theatres, office partitions, meeting rooms
- Over roof joists to reduce aircraft, rail and traffic noise. Applied between the plenum chamber of a floor slab, roof and adjoining partition walls
- Installed around the outside of metal air ducts to reduce noise break-out
- Wrapped around noisy pipes, valves and fan casings, e.g. fluid or gas pulsation in chemical, petrochemical, wastewater treatment plants and oil & gas pipelines
- Automotive firewalls: reduce engine and road noise transmitting through the structure
- Rail carriages for underfloor insulation to reduce track and braking noise

features

- Complies to AS1530.3 building code requirements
- Free from lead, odour-producing oils and bitumen
- Can be fitted around challenging places
- The foil facing also makes it easy to bond onto other substrates using matching Tape ALR adhesive or equivalent
- Simple to cut, sew, tape and mechanically fasten
- Resistant to water, oil and natural weather conditions
- Tear resistant with high tensile strength. Ability to be suspended in lengths of up to 16.5 ft
- Available with various laminates such as foams, polyesters and fibreglass



PRODUCT SPECIFICATIONS

Barrier Weight	Thickness	Standard Roll Size	Standard Roll Weight	Ceiling Sound Transmission Test AMA-1-II-1967 (CSTC)	Operating temperature range
0.5 lb/ft ²	0.05 in (1.2 mm)	4.4 ft x 30 ft (1.34 x 9.1 m)	66 lb (30 kg)	44 (Report No. A-22104-0228)	Continuous: -40 to 212 °F (-40 to 100 °C) Intermittent: -40 to 248 °F (-40 to 120 °C)
1 lb/ft ²	0.1 in (2.5 mm)	4.4 ft x 30 ft (1.34 x 9.1 m)	132 lb (60 kg)	48 (Report No. -22107-0228)	
1.5 lb/ft ²	0.15 in (3.7 mm)	4.4 ft x 20 ft (1.34 x 6.1 m)	132 lb (60 kg)	50 (Report No. 22114-0228)*	
2 lb/ft ²	0.19 in (4.9 mm)	4.4 ft x 15 ft (1.34 x 4.6 m)	132 lb (60 kg)	-	

Tolerances: Length: -0/+2 in (50 mm), Width: -0/+0.2 in (5 mm), Thickness: ±0.02 in (0.5 mm), Weight: ±10% *1.6 lb/ft² tested.

Supplied untrimmed - means some surface coverings such as foils, film or fabric may overhang the ordered useable width

MATERIAL PROPERTIES

Test method	Property	Report no.	Results
AS 1530.3	Ignitability, flame propagation, heat and smoke release	20-005160	0,0,0-1
AS 3837 / ISO 5660-1	Fire hazard properties	FH18406-01-1	Group 3*
BS 6853 Annex B2	Weighted summation of toxic fume	2974/R1	R 0.050
BS 6853 Annex D 8.6	Smoke density	377170	Cat 1b
BS476 part 7	Surface spread of flame	431606	Class 1
FMVSS-302	Flammability of interior materials	02313BD8	Complies to the requirements of US (DOT) Department of transportation for occupant compartments of motor vehicles

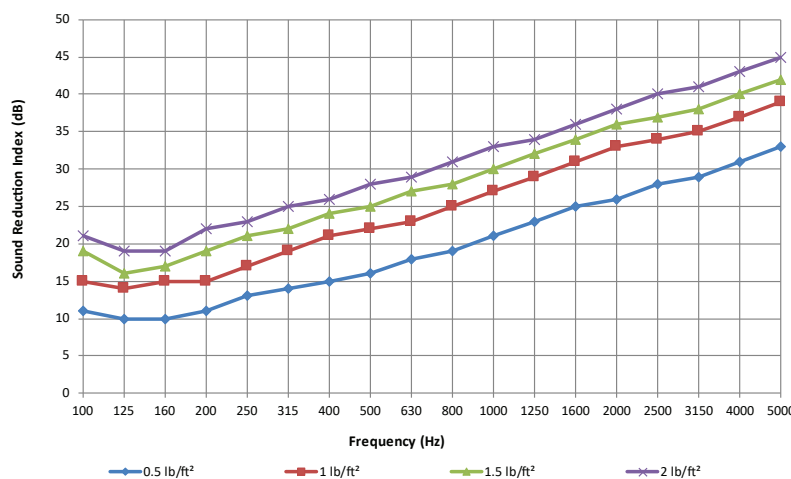
*Quadzero Black - Black foil facing

ACOUSTIC PERFORMANCE

Frequency (Hz)	0.5 lb/ft ²	1 lb/ft ²	1.5 lb/ft ²	2 lb/ft ²
100	11	15	19	21
125	10	14	16	19
160	10	15	17	19
200	11	15	19	22
250	13	17	21	23
315	14	19	22	25
400	15	21	24	26
500	16	22	25	28
630	18	23	27	29
800	19	25	28	31
1000	21	27	30	33
1250	23	29	32	34
1600	25	31	34	36
2000	26	33	36	38
2500	28	34	37	40
3150	29	35	38	41
4000	31	37	40	43
5000	33	39	42	45
STC	21	26	30	32

Tested to ASTM E90 at Riverbank Acoustical Laboratories, USA
Report Number: TL18-641, TL18-642, TL18-643 & TL18-644

Quadzero



ISO 15665 PIPE INSULATION TESTING

Barrier Weight	Test method	System Assembly	Report no.	Results
1 lb/ft ²	ISO 15665 (Group 2 Pipe Size)	Available on request	A 3041-1E-RA-002	ISO 15665: Class A2 & B2 NORSOK R-004: Class 6 & Class 7
1 lb/ft ² & 2 lb/ft ²	ISO 15665 (Group 2 Pipe Size)	Available on request	A 3041-4E-RA-002	ISO 15665: Class B2 & C2 NORSOK R-004: Class 7 & Class 8

Testing was conducted using Wavebar®

For further information and contact details, please visit our website
pyroteknc.com

Caveats: Specifications are subject to change without notice. The data in this document is typical of average values based on tests by independent laboratories or by the manufacturer and are indicative only. Materials must be tested under intended service conditions to determine their suitability for purpose. The conclusions drawn from acoustic test results are as interpreted by qualified independent testing authorities. Nothing here releases the purchaser/user from responsibility to determine the suitability of the product for their project needs. Always seek the opinion of your acoustic, mechanical and fire engineer on data presented by the manufacturer. Due to the wide variety of individual projects, Pyrotek is not responsible for differing outcomes from using their products. Pyrotek disclaims any liability for damages or consequential loss as a result of reliance solely on the information presented. No warranty is made that the use of this information or of the products, processes or equipment to which this Information Page refers will not infringe any third party's patents or rights.
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